Small Business Innovation Research/Small Business Tech Transfer

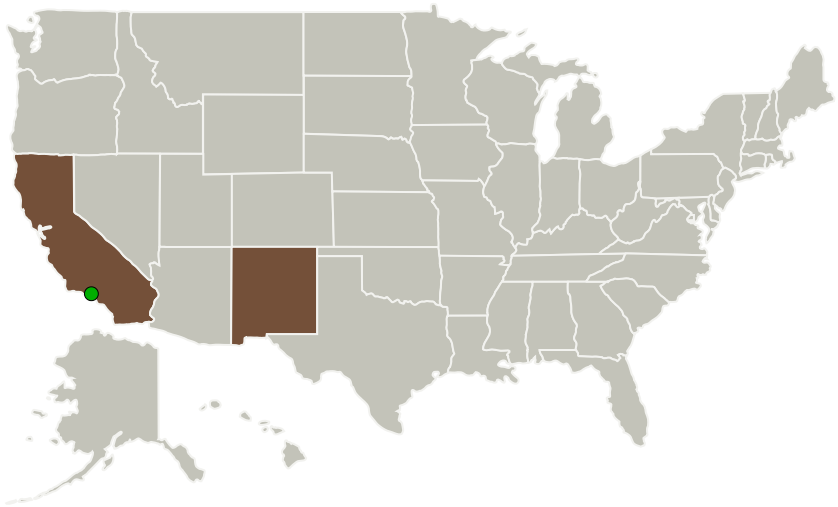
Real-Time Formaldehyde Monitor for the ISS, Phase I

Completed Technology Project (2013 - 2013)

Project Introduction

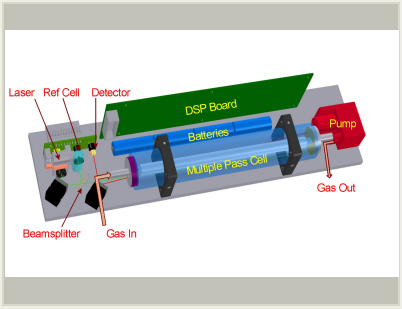
Ensuring a safe air environment in manned spacecraft is critical to the success of all missions. Exposure to hazardous chemical species threatens the well-being of the crew and prevents them from fulfilling their tasks. While a wide variety of sensors currently are available to monitor such chemicals on the ISS, some of these sensors are inadequate. In particular for one important species, formaldehyde, Southwest Sciences proposes to develop a sensor that can provide continuous, real-time monitoring of this gas, so as to assure that the crew is better protected.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Southwest Sciences, Inc.	Lead Organization	Industry	Santa Fe, New Mexico
Jet Propulsion Laboratory(JPL)	Supporting Organization	NASA Center	Pasadena, California

Primary U.S. Work Locations	
California	New Mexico



Real-Time Formaldehyde Monitor for the ISS

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Completed Technology Project (2013 - 2013)

Project Transitions

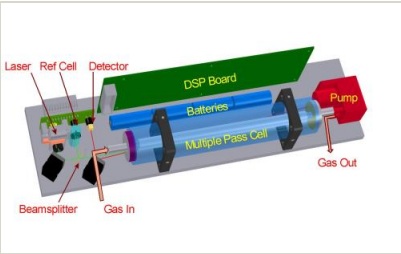
May 2013: Project Start

November 2013: Closed out

Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/138450)*

Images



Project Image
Real-Time Formaldehyde Monitor for the ISS
(https://techport.nasa.gov/image/128736)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Southwest Sciences, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

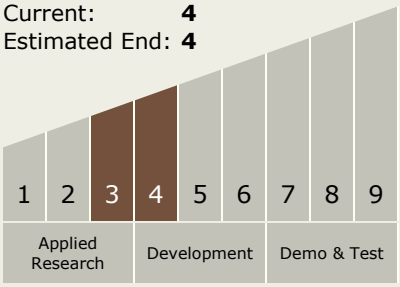
Carlos Torrez

Principal Investigator:

Joel A Silver

Technology Maturity (TRL)

Start: **3**
Current: **4**
Estimated End: **4**



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Completed Technology Project (2013 - 2013)

Technology Areas

Primary:

- TX06 Human Health, Life Support, and Habitation Systems
  - TX06.4 Environmental Monitoring, Safety, and Emergency Response
    - TX06.4.1 Sensors: Air, Water, Microbial, and Acoustic

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System